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Abstract of the Disclosure

A face sealing fitting includes two connectable tubular elements each having an annular end formation and a metal gasket including an outer annular section with a first axial dimension, an inner annular section concentric with the outer annular section and having a smaller axial dimension, and a tapered section having bevel faces between the inner and outer annular sections. Portions of the annular end formations which project axially the farthest beyond the tubular elements have a diameter substantially equal to the inner diameter of the inner annular gasket section and lie along the inner surface of the tubular elements to minimize dead volumes along the flowpath through the fitting.

In some embodiments, the fitting is tightened from a first position, in which the inner diameter of the gasket is smaller than the inner diameter of the first and second tubular elements, to a second position, in which the inner diameter of the tubular gasket is equal to the inner diameter of the first and second tubular elements. In the second position, the fitting is in an optimal sealing condition, and there is zero dead volume in the flowpath.